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(57) Abstract

A method for displaying a SGML page that facilitates selection and purchase of goods from multiple vendors by a purchaser includes the steps of: maintaining a database including a number of item entries representing items for sale; accessing a data structure representing a potential purchaser, the data structure includes permission information associated with the purchaser; and generating a SGML page for display responsive to the data structure and at least one of the entries in the item database. A corresponding apparatus includes a first memory element storing an item database and a second memory element storing a purchaser data structure which includes permission information. A page generator accesses the database and the data structure stored in the first and second memory elements and generates a SGML page for display.

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METHODS AND APPARATUS FOR FACILITATING ELECTRONIC COMMERCE

Field of the Invention

The present invention relates to networked systems and, more particularly to networked systems and methods for facilitating electronic commerce.

Background of the Invention

The world wide network of computers commonly known as the "Internet" has grown rapidly over the last several years. Much of this growth has been driven by the increase in popularity of the World Wide Web ("WWW" or "Web"). The WWW is a collection of files written using HyperText Markup Language (HTML), commonly referred to as "Web pages." HTML is an implementation of the Structured General Markup Language (SGML) standard. HTML files may be easily configured and created by users and accessed and displayed using specialized applications known as Web browsers, which allow a user to access and view HTML files using a graphical user interface.

Servers hosting HTML files can communicate using the HyperText Transfer Protocol ("HTTP"). HTTP is a communication protocol that provides user access to files (which can be in different formats such as text, graphics, images, sound, video, etc.) written using the HTML page description language. HTML provides basic document formatting functions and allows the developer of the HTML page to specify communication links to other servers and files. Use of an HTML-compliant browser on a client workstation involves specification of a link via a Uniform Resource Locator address or "URL". Upon such specification, the browser makes a "TCP/IP" request to the server address identified by the link and receives a Web page in return. The browser executing on the client workstation interprets the HTML file that it has received and displays the Web page to the user of the client workstation.

The browser renders the Web page by interpreting HTML tags, which are embedded control information that indicates to a browser when certain action should be taken. For example, a tag may indicate to the browser: (1) that a graphics file should be retrieved and

displayed at a particular location on the screen; (2) that the text following the HTML tag should be centered, bolded, or otherwise formatted; (3) that the background of the Web page should be shaded or have a particular pattern; or (4) that a different HTML file should be loaded and displayed in place of the HTML the file the browser in currently displaying.

A burgeoning application for the WWW is electronic commerce. In this application, a user uses the browser to make a request of a server which returns information causing the browser to display a page that displays items for sale. The page also allows the user to elect and purchase one or more displayed items which are subsequently shipped to the user. Unfortunately, since most web sites display items relating to a single store or source, it can be difficult to casually shop from multiple stores using the WWW.

A further problem exists with the current payment mechanism. Most shopping sites accept only credit cards as payment. This poses problems for minors wishing to use the WWW to purchase items. It also provides a fertile ground for fraud. Accordingly, there is a need for payment mechanisms in transactions occurring over networks in which permissions or controls may be placed on a purchaser.

Summary of the Invention

The present invention provides methods and apparatus for facilitating electronic commerce by providing a structure which displays items belonging to multiple vendors to a user for selection and purchase. In addition, a data structure representing the potential purchaser is maintained, allowing the purchase of items to be controlled based on the user's profile. In one particularly useful embodiment, the invention provides a way for supervised purchasers, such as children or supervised employees, to shop at commerce sites on the WWW without requiring a credit card to make a purchase. Individuals setting permissions, such as supervisors or parents, can set up accounts and have the option of controlling the items that the ultimate purchaser can buy. Also, because the purchaser profile contains permission information, the system can help guard against fraudulent use.

In one aspect, the present invention relates to a method for displaying an SGML page, the SGML page facilitating selection and purchase of goods from multiple vendors by purchaser. A database is maintained which includes a number of item entries, at least one of the item entries representing an item for sale. A data structure representing a potential purchaser is accessed.

The data structure includes permission information. An SGML page is generated responsive to the data structure and the item entries in the database.

In another aspect, the present invention relates to an apparatus for displaying an SGML page which facilitates the selection and purchase of goods by a purchaser. A first memory element stores a database which includes a number of item entries, at least one of the item entries representing an item for sale. A second memory element stores a data structure representing a potential purchaser. The data structure includes permission information associated with the purchaser. A page generator accesses the database stored in the first memory element and creates a SGML page for display to a potential purchaser responsive to the database and the data structure stored in the second memory element.

In yet another aspect, the present invention relates to an article of manufacture having computer-readable program means embodied thereon for displaying an SGML page, the SGML page facilitating selection and purchase of goods from multiple vendors by a purchaser. The article includes computer-readable program means for maintaining a database. The database includes a number of item entries, at least one of which represents an item for sale. The article of manufacture also includes computer-readable program means for accessing a data structure representing a potential purchaser. The data structure includes permission information associated with the purchaser. The article of manufacture further includes computer-readable program means for generating an SGML page for display responsive to the data structure and one of the item entries.

In still another aspect, the present invention relates to an article of manufacture having computer-readable program means embodied thereon for facilitating purchase of goods by a purchaser. The article includes computer-readable program means for representing a potential purchaser, the program means including permission information associated with the purchaser.

Brief Description of the Drawings

The invention is pointed out with particularity in the appended claims. The advantages of the invention described above, as well as further advantages of the invention, may be better understood by reference to the following description taken in conjunction with the accompanying drawings, in which:

FIG. 1 is a block diagram of a networked commerce system;

FIG. 2 is a diagrammatic view of a client workstation that may be used in the system of FIG. 1;

FIG. 3 is a flowchart of the steps to be taken by a server to display an SGML page in a networked commerce system;

FIG. 4 is a diagrammatic representation of a screen shot depicting a screen for collecting parent information;

FIG. 5 is a diagrammatic representation of a screen shot depicting a screen for collecting supervised purchaser profile information;

FIG. 6 is a diagrammatic representation of a screen shot depicting an embodiment of a screen for collecting information for a child profile;

FIG. 7A is a diagrammatic representation of a screen shot depicting an embodiment of a screen for collecting payment information;

FIG. 7B is a diagrammatic representation of a screen shot depicting an embodiment of a screen for collecting payment information;

FIG. 8 is a data flow diagram depicting a purchaser trip to a vendor site for embodiments in which vendor sites maintain their own item entry databases; and

FIG. 9 is a data flow diagram depicting purchaser check out from a vendor site in an embodiment in which the vendor site maintains its own item entry database.

Detailed Description of the Invention

Referring now to FIG. 1, and in brief overview, a system for providing a networked commerce system is shown. Client workstations 12′ are connected to one or more servers 14. The client workstations 12′ may be connected in any physical arrangement such as a star, loop, ring, or bus. The network connecting client workstations 12′ and the server 14 may use any physical media, including wireless, provided that the physical media supports the HyperText Transfer Protocol (HTTP).

Referring also to FIG. 2, the client workstation 12′ may be any machine that supports reception and transmission of data signals over an HTTP network. In general, a client workstation 12′ is a personal computer executing a "browser" program to display an HTML page 40, on the screen 30 of the client workstation 12′. The user interacts with pages displayed by the

browser utilizing a "point-and-click" interface, i.e., the viewing user uses a mouse 32 to manipulate a cursor 42 that is also displayed on the screen 30 of the client workstation 12'. Once the cursor 42 is over a particular portion of the HTML page 40, the viewing user signals by "clicking" or "double clicking" a button 33 on the mouse 32. Alternatively, the viewing user may also signal by pressing a key on an associated keyboard 36, such as the "return" key. In other embodiments, the viewing user may not use a mouse 32 at all, but may instead use a touchpad, a trackball, a pressure-sensitive tablet and pen, voice recognition, or any other input mechanism for manipulating the cursor. It should be noted that similar machines may be used to provide workstations 12' and servers 14. In some embodiments a single machine may act, at times, as both a client workstation 12' and a server 14.

Referring to FIG. 3, the present invention relates to a method for displaying an SGML page that facilitates the selection and purchase of goods from multiple vendors. A server 14 maintains a database 20 which includes a plurality of item entries (step 302). Each of the item entries represents an item for sale. The items may be offered for sale by the operator of the server 14 or an agent of the operator. Alternatively, the item may be offered for sale by another entity that has agreed with the operator of the server 14 to allow its goods to be offered for sale by or on the server 14.

Database 20 may be stored by the server 14 on any convenient mass storage device. For example, FIG. 1 depicts an embodiment in which the server 14 stores the database 20 on an associated hard disk drive 16. Alternatively, the server 14 may store the database in Random Access Memory (RAM) if the database 20 is capable of fitting within the physical memory space of the server 14. The database 20 may be a flat database, relational database, multi-dimensional database, or object-oriented database. Each server 14 may store more than one database 20, where each database 20 represents a different set of items offered for sale. For example, typical relational databases that may be used to provide the database 20 include Jet Database Engine, manufactured by Microsoft Corporation of Redmond, Washington and Sybase Adaptive Server Enterprises, manufactured by Sybase Inc. of Emeryville, California.

The item entries stored by the database 20 provide information related to an item offered for sale. The item entry may include fields for recording: the stock keeping unit (SKU) number; the quantity of a given item in stock; the location of items in stock; physical characteristics of items in stock such as color, size, or weight; or the price charged for an item. In some

embodiments the database 20 maintains entries for items that are offered for sale by different vendors and, in these embodiments, items entries may include a field indicating the identity of the vendor for an item.

The server 14 accesses a data structure representing a potential purchaser (step 304). The data structure may be maintained by the server 14 in RAM or its associated persistent storage elements, i.e., a tape drive 18 or a hard disk drive 20. Alternatively, the server 14 may receive the data structure from the user or some other source. For example, a user may maintain its data structure locally on a workstation 12', and only transmit the data structure to the server 14 when the user desires to make a purchase. The data structure may be implemented as a linked-list or doubly-linked list element, an entry in an array of records, or as an entry in a purchaser database. The data structure includes information relating to the potential purchaser, including but not limited to: name; address; shipping preference; phone number or numbers at which the purchaser may be reached; electronic mail or Uniform Resource Locator (URL) address at which the purchaser may be reached; password used to authenticate the purchaser; the gender of the purchaser; the birth date of the purchaser; and, in some embodiments, an amount of money available to the purchaser with which to make purchases. The purchaser data structure also includes information relating to certain items or classes of items that the user may not purchase without some form of external authorization or pre-approval. For example, the data structure may include information identifying items from a particular vendor that the purchaser may not purchase without approval from another person. Alternatively, the data structure may use such information by not displaying that class of items, e.g. items from a particular vendor, to the purchaser. The data structure may include information that identifies certain items or classes of items based on purchase price, vendor identification, or item identification.

In one embodiment, the purchaser data structure has an associated second data structure that stores items which the purchaser has identified as items they would like to purchase or receive as gifts. This second data structure may be a linked or doubly-linked list, an array, or a database of item entries. The second data structure is associated with a particular user either by including a user identifier in the second data structure or by including a pointer in the purchaser data structure that identifies the purchaser with which the second data structure is associated. The second data structure may store items from multiple vendors, and may include items for which the purchaser cannot purchase without approval from another person/controller.

Alternatively, the second data structure may be provided as data table which includes one or more of the following fields: a field identifying the purchaser; a field identifying a particular items sku number; a field identifying the item's price; a field identifying the item's description; a field identifying the quantity of the item desired; and a field identifying whether or not someone has purchased the item.

Referring again to FIG. 1, the server 14 stores an item entry database in a first memory element associated with the server 14. FIG. 1 depicts an embodiment in which the item entry database 20 is stored on a hard disk drive, although the item entry database may be stored in any appropriate transient or persistent memory element, such as a tape drive, floppy disk drive, CD-ROM, optical memory element, RAM, read-only memory (ROM), programmable read-only memory (PROM), electronically-erasable programmable read-only memory (EEPROM), flash memory, or, as shown in FIG. 1, hard disk drive. The server 14 also stores a purchaser data structure in a second memory element which may be selected from the list above. In some embodiments, the second memory and the first memory element are the same memory element. Both the item entry database and the purchaser data structure may be transmitted to the server 14 and stored for only a predetermined period of time. For example, the server 14 may receive an item entry database from a particular vendor that is valid for only one day. The server 14 stores the received item entry database for that day, after which it is invalid and is purged from the first memory element.

The server 14 also includes an SGML page generator that accesses both the item entry database and the purchaser data structure and creates an SGML page for display responsive to entries in the database and the data structure. For embodiments in which the invention is to be used on the WWW, the page generator creates an HTML page for display using the database and the purchaser data structure.

In some embodiments, the server 14 creates SGML pages in response to purchaser requests transmitted to the server 14 from the client workstation 12'. For example, the purchaser may transmit a request to view all items that have a purchase price of less than twenty dollars. The page generator accesses the item entry database to determine all items which satisfy that search criteria. The page generator then accesses the purchaser database to determine if any of the items satisfying the search criteria are items for which the purchaser does not have authorization to purchase without approval. This information is used by the page generator to

create an SGML page that can be displayed to the purchaser to respond to the request. The server may use any of a number of technologies to dynamically generate SGML pages for display. One technology, which dynamically creates HTML pages for display, is COLD FUSION, manufactured by Allaire Corporation of Cambridge, Massachusetts. Another technology that may be used to create HTML pages is ACTIVE CLIENT PAGES, manufactured by Microsoft Corporation of Redmond, Washington.

If the invention is provided as computer software, it may be written in any high-level programming language which supports the data structure requirements described above, such as C, C++, PASCAL, FORTRAN, LISP, or ADA. Alternatively, the invention may be provided as assembly language code. In another alternative, the invention may be written in a bytecode language such as JAVA. The invention, when provided as software code, may be embodied on any non-volatile memory element, such as floppy disk, hard disk, CD-ROM, optical disk, magnetic tape, flash memory, or ROM.

The following example is intended to be for illustration purposes only and is not intended to limit the scope of the invention in any way. In one embodiment, the invention may be used to allow parents to set up accounts for their children so that their children can shop using the Web. A parent accesses the server 14 by providing the URL address of the server 14 to a browser program. The server 14, when accessed, provides a number of pages that are displayed to the parent which allow the parent to set up a child account.

Referring to FIG. 4, a first screen 400 of the parent registration process can provide input mechanisms to collect the following information: first name 402, middle name 404, last name 406, street address (line 1) 408, street address (line 2) 410, city 412, state 414, zip code 416, day phone 418, night phone 420, and email address 422 using SSL security. This screen also allows the parent to enter a password associated with the parent 424. In some embodiments, passwords must have at least 8 characters and must include letters and numbers. Whenever a password is submitted, it is checked for conformity and checked against a database of easily guessed passwords. Such databases are well-known in the art. The parent indicates completion of the first screen 400 by clicking button 426. This action also submits the information entered on the form 400.

After clicking button 426, and referring now to FIG. 5, a second screen 500 is provided that displays a unique username for the parent account. In this embodiment, the username

comprises the first name of the parent concatenated with the first initial of the last name of the parent and a number. In further embodiments, the number is a serialized number.

In the embodiment depicted in FIG. 5, this screen 500 also begins the child registration process. The screen provides fields for collecting information about the child, including: first name 502, last name 504, account name 506, birth date 508, sex 510, and email address 512. This screen 500 also allows the parent to enter a password associated with the child. In some embodiments, passwords must have at least 8 characters and must include letters and numbers. Whenever a password is submitted, it is checked for conformity and checked against a database of easily guessed passwords. Such databases are well-known in the art. The parent indicates completion of this screen 500 by clicking button 520.

After clicking button 520, and referring now to FIG. 6, a second screen 600 is provided that displays a unique username for the child account. In this embodiment, the username comprises the first name of the child concatenated with the first initial of the last name of the child and a number. In further embodiments, the number may be serialized. The screen also displays a list of registered merchants and a short profile of each 602, 604, 606, 608, 610, 610. The parent is provided with check boxes 603, 605, 607, 609, 611, 613 allowing them to identify stores at which they do not want their children to be able to shop. Radio buttons 620, 622, 624 are provided to allow the parent to indicate that: parental approval is not required for purchases; parental approval is required for every purchase; or parental approval is required for purchases over a specified dollar amount. The parent indicates completion of this screen 600 by clicking button 640. At this point, the server 14 presents the parent with a choice to submit another child profile or to continue. If the parent would like to submit another child profile, they are returned to screen 500.

If the parent elects to continue, and referring now to FIG. 7, the server 14 presents the parent with a page 700 providing options to set up accounts for each child. This screen 700 allows the parent to specify an amount of money they would like to deposit into the child's account or to specify a credit card which will be used to deposit money into the child's account. The parent indicates the amount of money to be deposited by using entry fields 702 which allow the parent to specify the amount of money to be deposited and the date on which the deposit becomes effected. If the parent elects to allow the child to use a credit card, the screen 700 provides a number of entry fields 704 which allow the parent to enter the credit card number, the

expiration date, the name which appears on the card, and the billing address for the credit card. The parent signals completion of this screen 700 by clicking button 706. In an alternative embodiment, and referring to FIG. 7B, the parent may elect to make automatic scheduled deposits to a child's account. The screen 750 provides a number of entry fields 752 which allow the parent to set up an "allowance" for the child. The parent is able to specify an amount to be deposited 780 and either a day of the week 782, a day of the month 784 or a day of the year 786 on which the deposit is made. In some embodiments, the number of remaining days in the month is calculated and an amount is deposited to the account based on that result. The screen 750 also provides similar entry fields for entering credit card information 754 as described above in respect to FIG. 7A. The parent signals completion of this screen 750 by clicking button 790.

In still others embodiments, the parent may identify a credit card the child may use to make purchases. In these, embodiments the parent may indicate a spending limit per day, per week, per item, or per billing period.

Optionally, guests/visitors may be identified who will have access to certain elements of a child's account. For example, "wish list" information similar to that gathered for parents and children may be gathered for each guest and the guest may be registered with a unique identifier and password as described above. This would allow, for example, an aunt or uncle to be identified as having access to a child's account to allow that aunt or uncle to purchase gifts for the child using information gathered from the child's account.

In the embodiment described above, the information gathered by the screens identified in FIGS. 4-7B is arranged into a number of database table structures which are used by the server 14 to dynamically generate SGML pages for display. For example, the information gathered about a parent is arranged into a "parent" database table structure. Similarly, the information gathered about each "child" and each guest is arranged into a child database table structure and a "guest" database table structure. Each of these database table structures includes fields identifying the user name, password, first name, middle name, last name, email address, daytime phone number, nighttime phone number, and various fields for that individual's address. Deposits that are made to a child's account are recorded in a deposits database table structure which includes the identify of the person making a deposit, whether or not that person was a parent or a guest, the amount of the deposit, the date and time of the deposit, and a text field identifying the reason given, if any. In some embodiments, the deposits database is encrypted.

Similarly, if the parent has chosen to set up an allowance for the child (referencing back to FIG. 7B), that information is included in an allowance database table structure which includes the amount transferred to the child's account, the date and time of the transfer, and whether or not a parent or guest supplied the allowance.

Information regarding the child's account is also kept in one or more database table structures. For example, and as described briefly above, the child's wish list is kept in a separate database table structure which includes information relating to the items the child would like to buy or have bought for him or her. The balance in a child's account is kept in a database table structure including the amount of money left in the account, any spending limit imposed on the child by the parent or other adult who set up the account, and any transaction limit which has been set on the child's account. Similarly, the stores at which the child is allowed to shop are identified in an allowed stores database table structure which includes vendor identification fields and child identification fields. Certain embodiments may also be provided with a database table structure which records transaction history as well as order history for future reference by the child or the child's parents.

In some embodiments, potential purchasers use an article of manufacture instead of a client workstation 12′ to interact with the server 14. In these embodiments, the purchaser possesses an article of manufacture that stores a computer-readable program means that represents the purchaser. The computer-readable program means that represents the purchaser can be similar to, or exactly the same as, the purchaser data structure described above. The article of manufacture may be any physical item that is capable of storing the computer-readable program means and is convenient for the purchaser to physically possess, such as a smartcard or a magnetic stripe card. In further embodiments, the computer-readable program means representing the user includes information representing monetary units available to the purchaser for purchasing items.

The computer readable program means stored on the article of manufacture can be any one of the database table structures identified above in the example.

In the embodiments described above, a single server 14 maintains and stores one or more item entry databases for each vendor at which a child may shop. In another implementation, each individual vendor maintains their own item entry database 20 and supplies information regarding

purchases to a central server which approves or denies transactions based on the purchaser data structure.

Referring now to FIG. 8, the data flow for such an embodiment will be described. A purchaser enters a vendor's website via a central server 14. The server 14 transmits HTML data (step 802) representing its website. The server may transmit HTML data representing the actual site, or the data may represent an authorized replica of the site hosted by an agent of the vendor. The website is displayed on the purchaser's computer by a browser application. The website includes icons or text representing vendor websites. Each icon or text is a hyperlink to a vendor's website or replica database/design. The purchaser clicks on a vendor's icon (step 804) and receives an HTML file from the vendor site (step 806) which may include various types of information about the vendor website such as, updates on currently running sales, an array of products for sale, or other demographic information about the site. At this point, the purchaser is able to shop at the vendor website or database in a traditional manner, that is, providing different URL addresses corresponding to pages in the vendor's website and receiving HTML pages corresponding to those URL addresses, the HTML pages identifying items which the vendor offers for sale. At some point, the purchaser desires to add an item to their shopping cart (step 810). Typically, the purchaser signifies this by clicking on a button, hyperlink, or other indicator associated with the item. Similarly, a purchaser my desire to add an item to its "wish list" (step 812). The vendor website transmits the identity of the item to the server 14 and the server, after making the appropriate entry in a database table structure, transmits a command back to the vendor site or replicated database (step 816). The command instructs the vendor site to take some action in response to the purchaser's actions. For example, the command may instruct the vendor site or database to decrement the quantity of that item available by one if the purchaser has indicated they want to make a purchase. Alternatively, the command can instruct the vendor site (or database) to add the item to that purchaser's wish list. In one embodiment, data is transmitted between the vendor site and the server 14 using the HTTP POST COMMAND. If the addition of the item to the purchaser's wish list is approved, the vendor website updates the purchaser's shopping cart (step 818) and the purchaser may continue shopping. Alternatively, the purchaser may decide to check out (step 820). In some embodiments, maintenance of purchaser wish lists and lists of items purchasers are in the process of buying is provided by a separate web site or database.

If the purchaser has one or more items in its shopping cart and the purchaser decides to check out, one or more transactions is posted to the vendor's site (step 902). The vendor site posts that transaction to server 14 which responds with a confirmation or failure to the vendor's site (step 906). Whether or not a particular transaction succeeds or fails is based on the various database table structures stored by the server. For example, a given password may be incorrect, or the purchaser may not have authorization to purchase the selected item.

Whether or not a transaction succeeds or fails a receipt is displayed to the shopper (step 908) which indicates the state of the transaction. The shopper acknowledges the receipt (step 910) and is returned to the main server 14 (step 912).

In this embodiment, the detailed data representing the purchaser is maintained by the main server 14 while the item entry databases are maintained by the respective vendor. This allows server 14 to function as an electronic mall, that is, allowing users to move from store to store to shop. In addition, restrictions that are placed on the purchaser are maintained which allows parents to control the spending patterns of their children and makes fraudulent use of accounts more difficult.

Having described certain embodiments of the invention, it will now become apparent to one of ordinary skill in the art that other embodiments incorporating the concepts of the invention may be used. Therefore, the invention should not be limited to certain embodiments, but rather should be limited only by the spirit and scope of the following claims.

CLAIMS

What is claimed is:

1. A method for displaying an SGML page, said SGML page facilitating selection and purchase of goods from multiple vendors by a purchaser, the method comprising the steps of:

(a) maintaining a database including a plurality of item entries, at least one of the plurality of item entries representing an item for sale;

(b) accessing a data structure representing a potential purchaser, the data structure including permission information; and

(c) generating an SGML page for display responsive to the data structure and said at least one of the plurality of item entries in the database.

2. The method of claim 1 wherein step (a) comprises maintaining a database including a plurality of item entries, at least one of the plurality of item entries having an SKU field and representing an item for sale.

3. The method of claim 1 wherein step (a) comprises maintaining a database including a plurality of item entries, at least some of the plurality of item entries associated with a first vendor and others of the plurality of item entries associated with a second vendor.

4. The method of claim 1 wherein step (b) comprises:

(b-a) maintaining a data structure representing a potential purchaser; and

(b-b) accessing the data structure.

5. The method of claim 1 wherein step (b) comprises accessing a data structure representing a potential purchaser, said data structure including information identifying items which the potential purchaser does not have the authorization to purchase.

6. The method of claim 5 wherein the items which the potential purchaser does not have the authorization to purchase are identified responsive to price information associated with the items.

7. The method of claim 5 wherein the items which the potential purchaser does not have the authorization to purchase are identified responsive to vendor information associated with the items.

8. The method of claim 1 further comprising the step of maintaining a list associated with the user, the list including one or more item entries, each of said item entries representing an item that the associated user desires.

9. The method of claim 8 wherein the list includes items from multiple vendors.

10. An apparatus for displaying an SGML page, said SGML page facilitating selection and purchase of goods by a purchaser, the apparatus comprising:

a first memory element storing a database including a plurality of item entries, at least one of the plurality of item entries representing an item for sale;

a second memory element storing a data structure representing a potential purchaser, said data structure including permission information associated with the purchaser; and

a page generator accessing said database stored in said first memory element and creating an SGML page for display to a potential purchaser responsive to said database and said data structure stored in said second memory element.

11. The apparatus of 10 wherein said page generator creates an HTML page for display.

12. The apparatus of claim 10 further comprising a receiver which receives a request from a potential purchaser, the request indicating that the page generator should create a page for display to the potential purchaser.

13. The apparatus of claim 12 wherein said page generator dynamically creates a page for display responsive to the request received from the potential purchaser.

14. An article of manufacture having computer-readable program means embodied thereon for displaying an SGML page, said SGML page facilitating selection and purchase of goods from multiple vendors by a purchaser, the article comprising:

(a) computer-readable program means for maintaining a database including a plurality of item entries, at least one of the plurality of item entries representing an item for sale;

(b) computer-readable program means for accessing a data structure representing a potential purchaser, the data structure including permission information; and

(c) computer-readable program means for generating an SGML page for display

responsive to the data structure and said at least one of the plurality of item entries in the database.

15. The article of manufacture of claim 14 further comprising computer-readable program means for maintaining a data structure representing a potential purchaser.

16. An article of manufacture having computer-readable program means embodied thereon for facilitating purchase of goods by a purchaser, the article comprising:

computer-readable program means for representing a potential purchaser, said program means including permission information associated with the purchaser.

17. The article of manufacture of claim 16 further comprising computer-readable programs means representing monetary units available for spending.

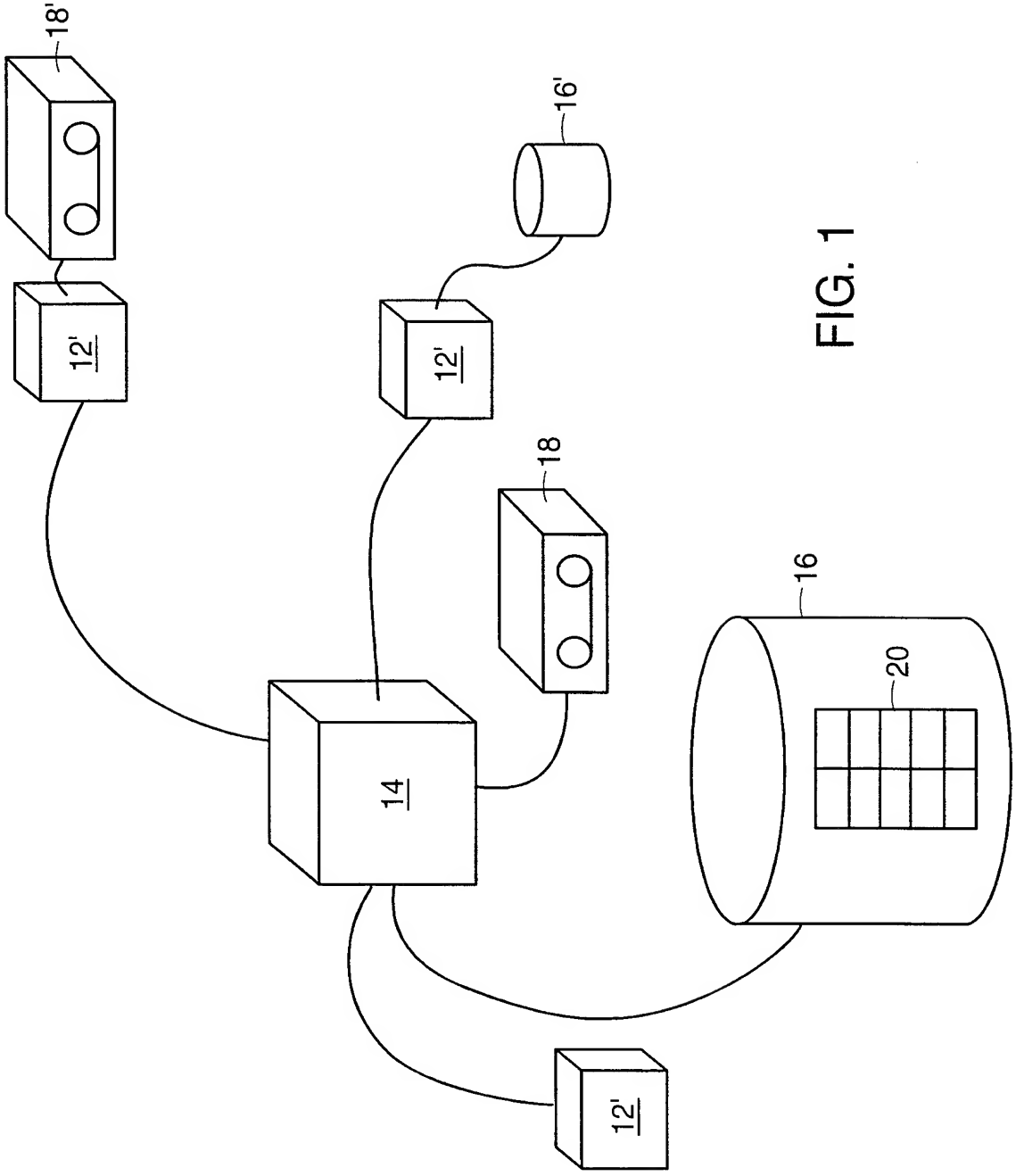


FIG. 1

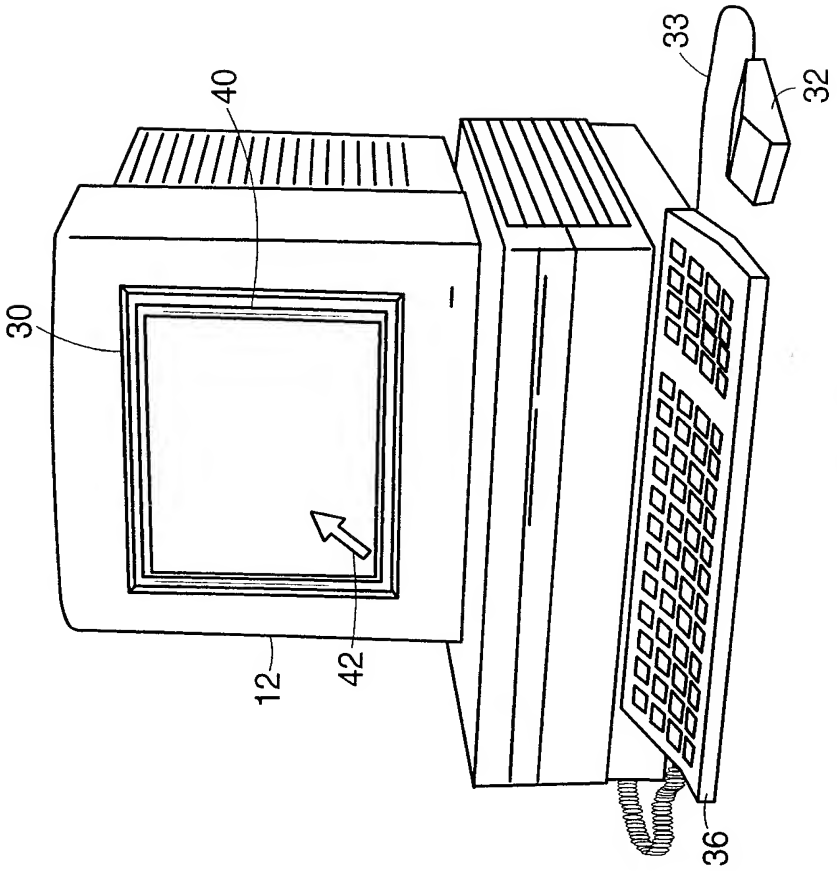


FIG. 2

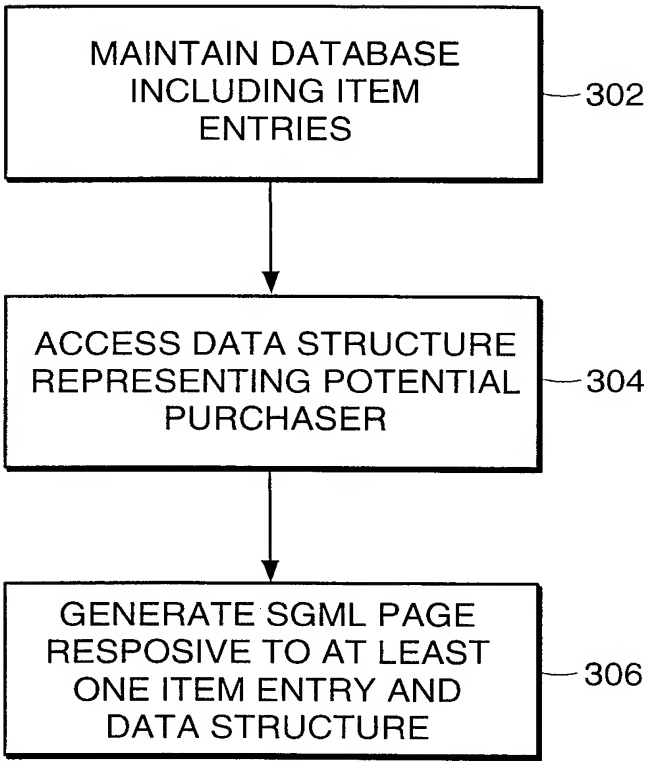
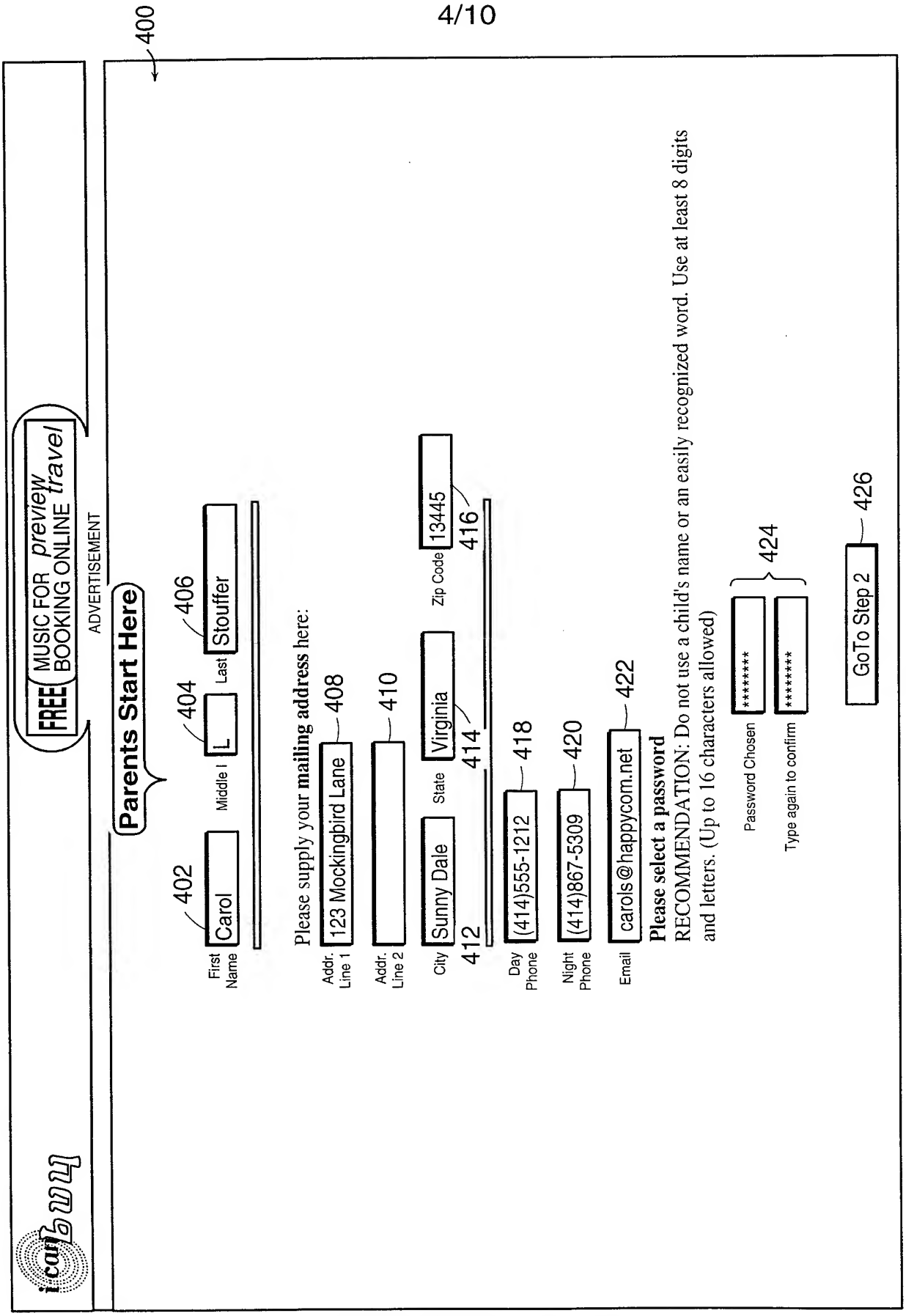

MAINTAIN DATABASE INCLUDING ITEM ENTRIES
302
ACCESS DATA STRUCTURE REPRESENTING POTENTIAL PURCHASER
304
GENERATE SGML PAGE RESPOSIVE TO AT LEAST ONE ITEM ENTRY AND DATA STRUCTURE
306

FIG. 3


400
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Parents Start Here
402
First Name
Carol
404
Middle I
L
406
Last
Stouffer
Please supply your mailing address here:
408
Addr. Line 1
123 Mockingbird Lane
410
Addr. Line 2
412
City
Sunny Dale
414
State
Virginia
416
Zip Code
13445
418
Day Phone
(414)555-1212
420
Night Phone
(414)867-5309
422
Email
carols@happycom.net
Please select a password
RECOMMENDATION: Do not use a child's name or an easily recognized word. Use at least 8 digits and letters. (Up to 16 characters allowed)
424
Password Chosen
****
Type again to confirm
****
426
GoTo Step 2

FIG. 4

SUBSTITUTE SHEET (RULE 26)

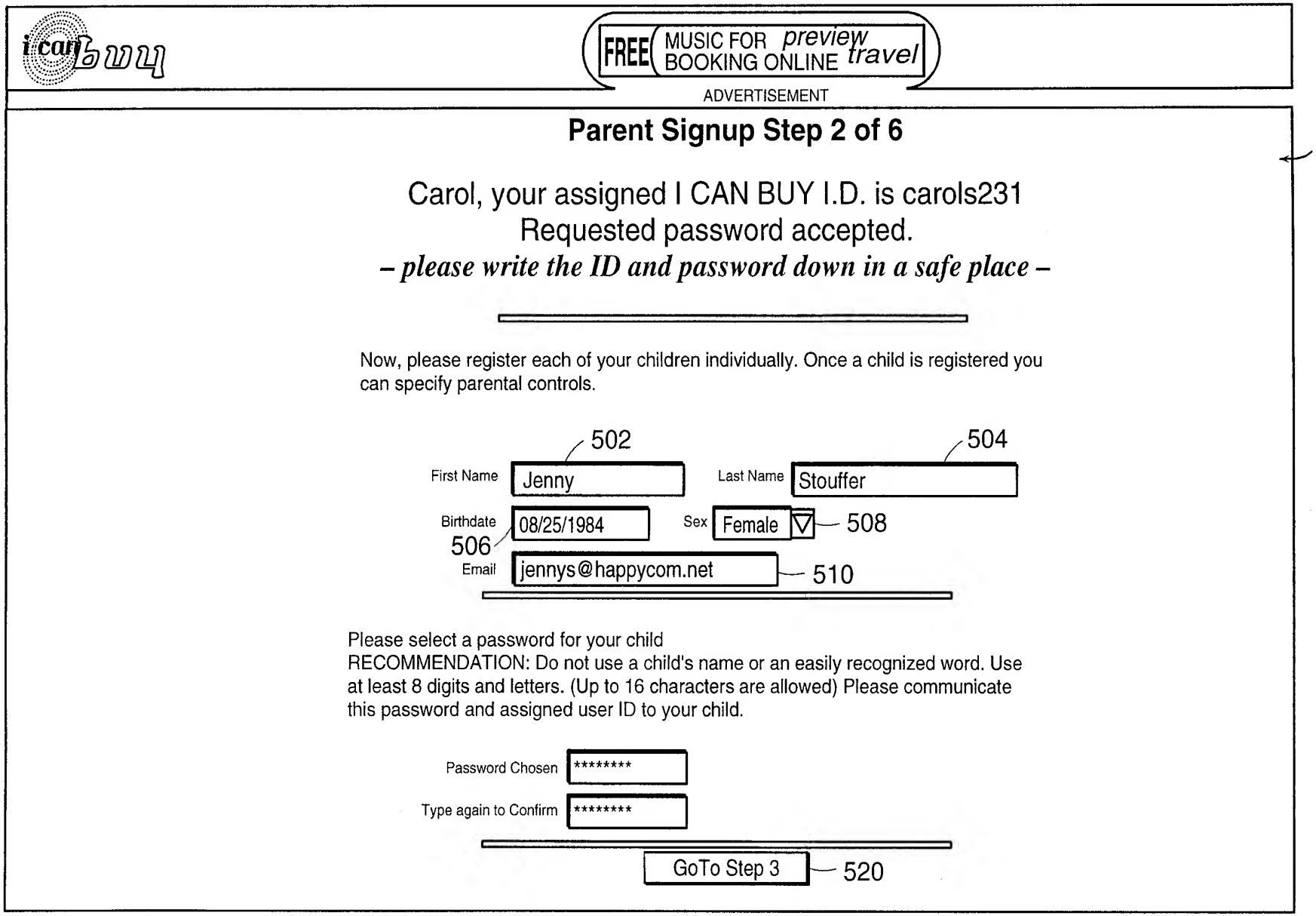


FIG. 5

SUBSTITUTE SHEET (RULE 26)

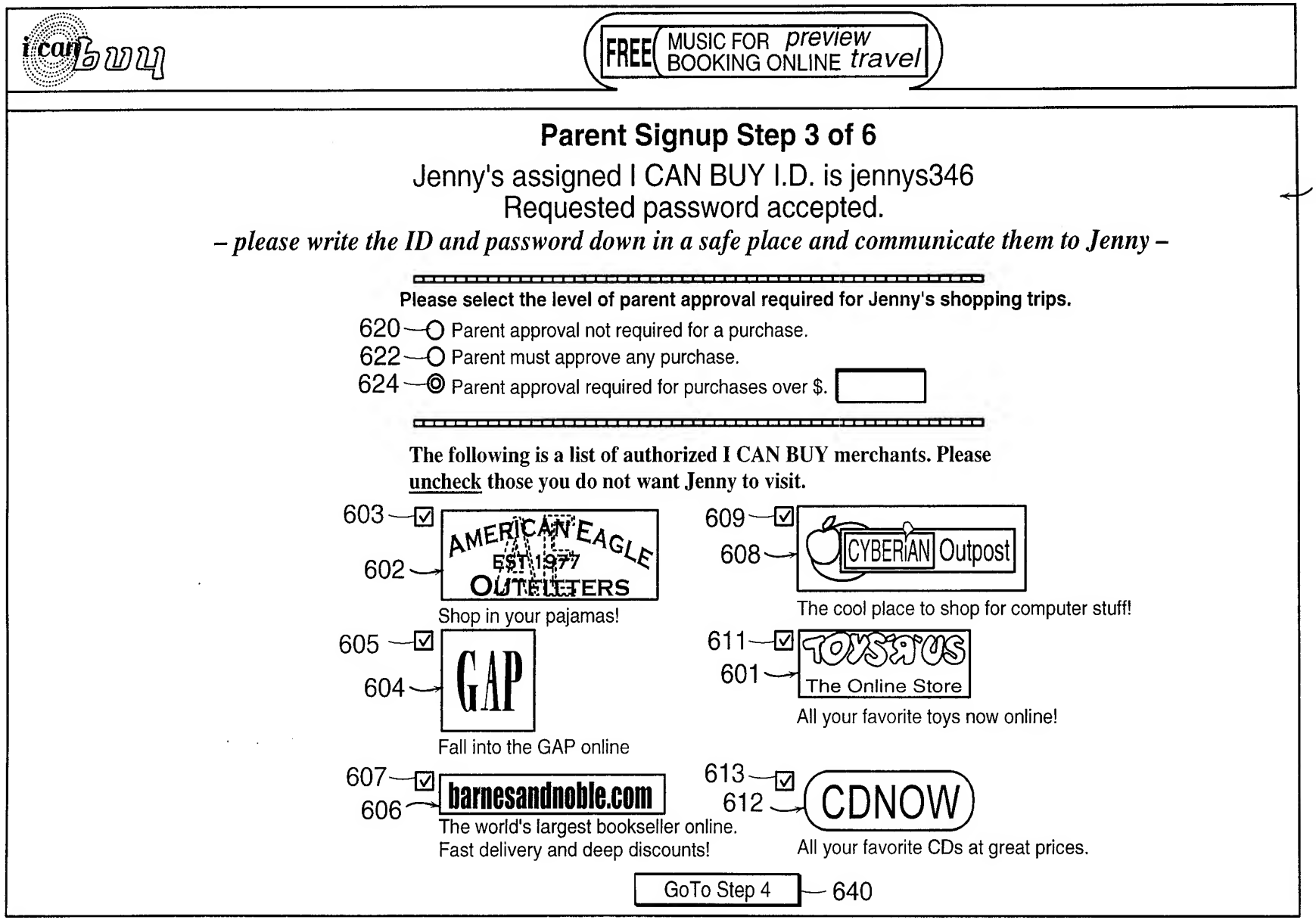


FIG. 6

SUBSTITUTE SHEET (RULE 26)

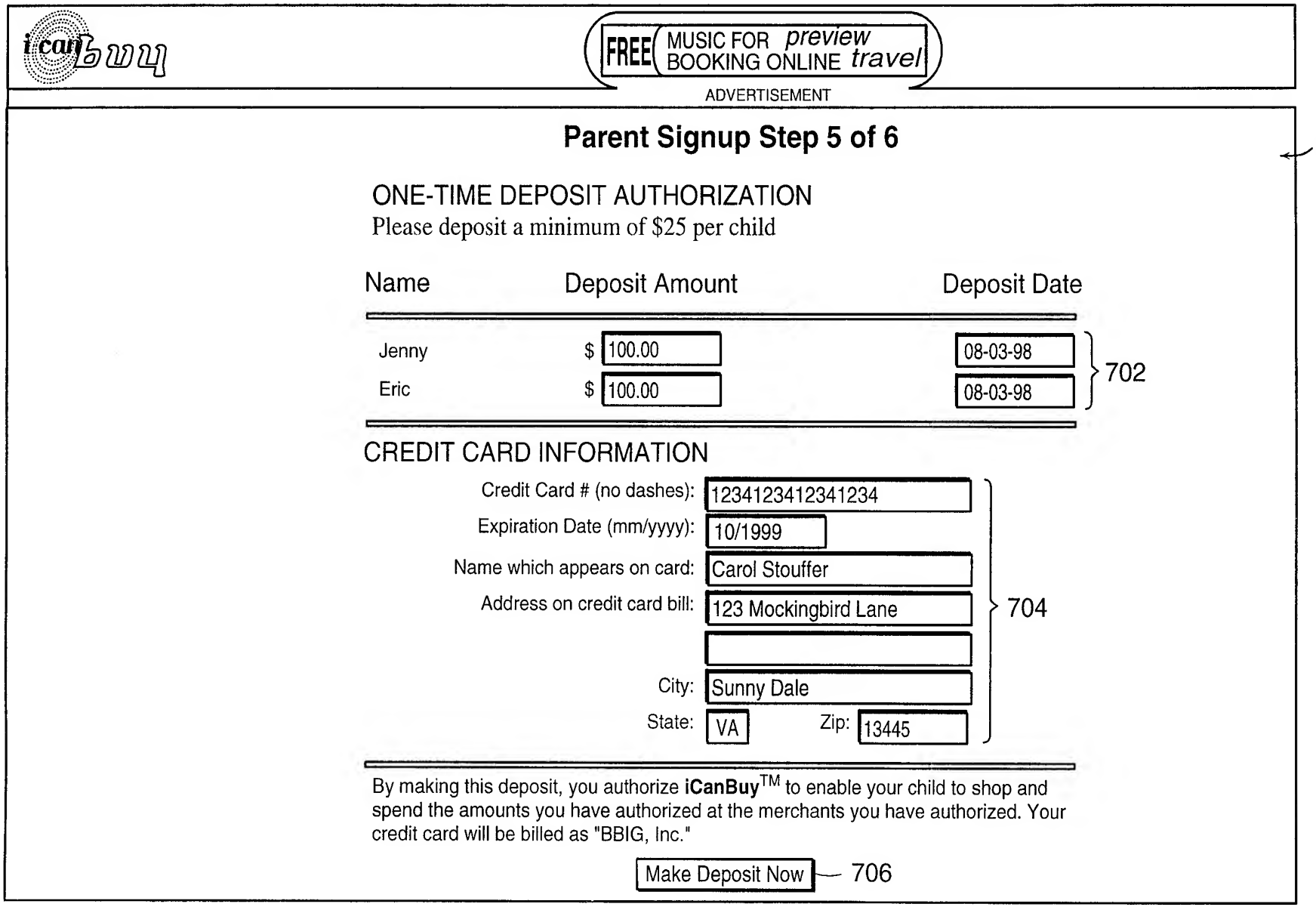
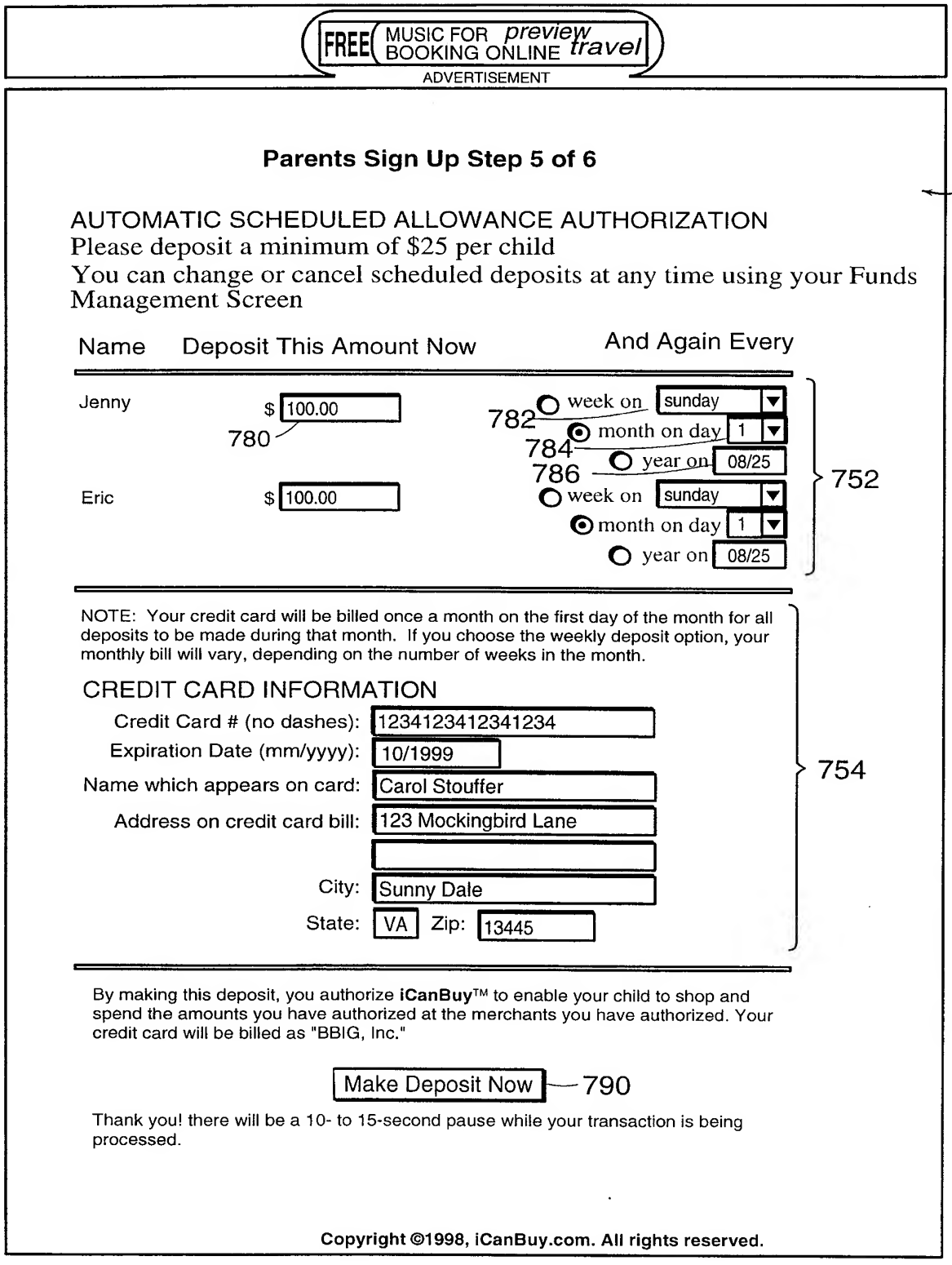


FIG. 7A


FREE MUSIC FOR BOOKING ONLINE preview travel
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Parents Sign Up Step 5 of 6
750
AUTOMATIC SCHEDULED ALLOWANCE AUTHORIZATION
Please deposit a minimum of $25 per child
You can change or cancel scheduled deposits at any time using your Funds Management Screen
Name
Deposit This Amount Now
And Again Every
Jenny
$ 100.00
780
week on sunday
782
month on day 1
784
year on 08/25
786
Eric
$ 100.00
week on sunday
month on day 1
year on 08/25
752
NOTE: Your credit card will be billed once a month on the first day of the month for all deposits to be made during that month. If you choose the weekly deposit option, your monthly bill will vary, depending on the number of weeks in the month.
CREDIT CARD INFORMATION
Credit Card # (no dashes): 1234123412341234
Expiration Date (mm/yyyy): 10/1999
Name which appears on card: Carol Stouffer
Address on credit card bill: 123 Mockingbird Lane
City: Sunny Dale
State: VA Zip: 13445
754
By making this deposit, you authorize iCanBuy™ to enable your child to shop and spend the amounts you have authorized at the merchants you have authorized. Your credit card will be billed as "BBIG, Inc."
Make Deposit Now
790
Thank you! there will be a 10- to 15-second pause while your transaction is being processed.
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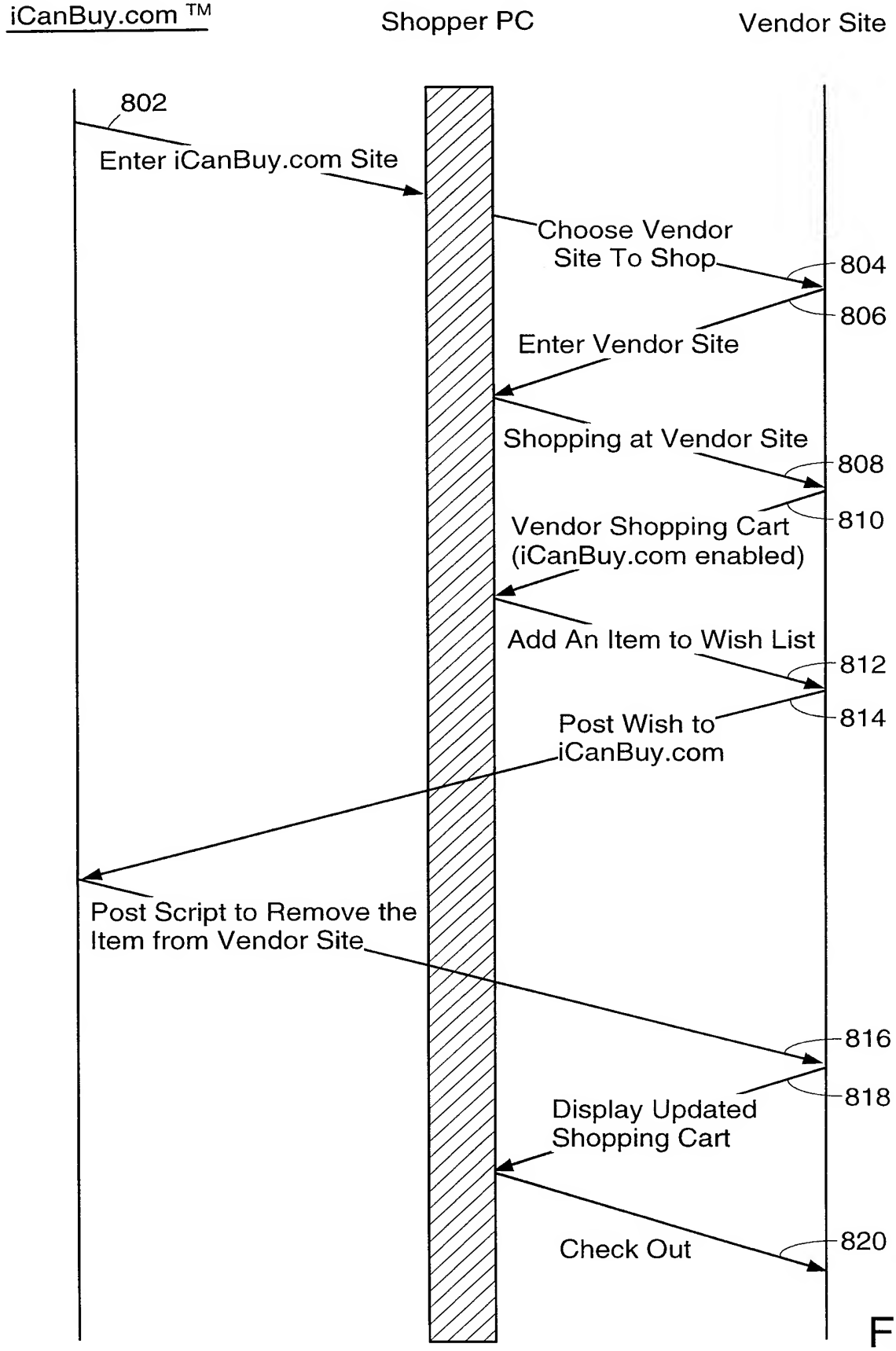
FIG. 7B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802
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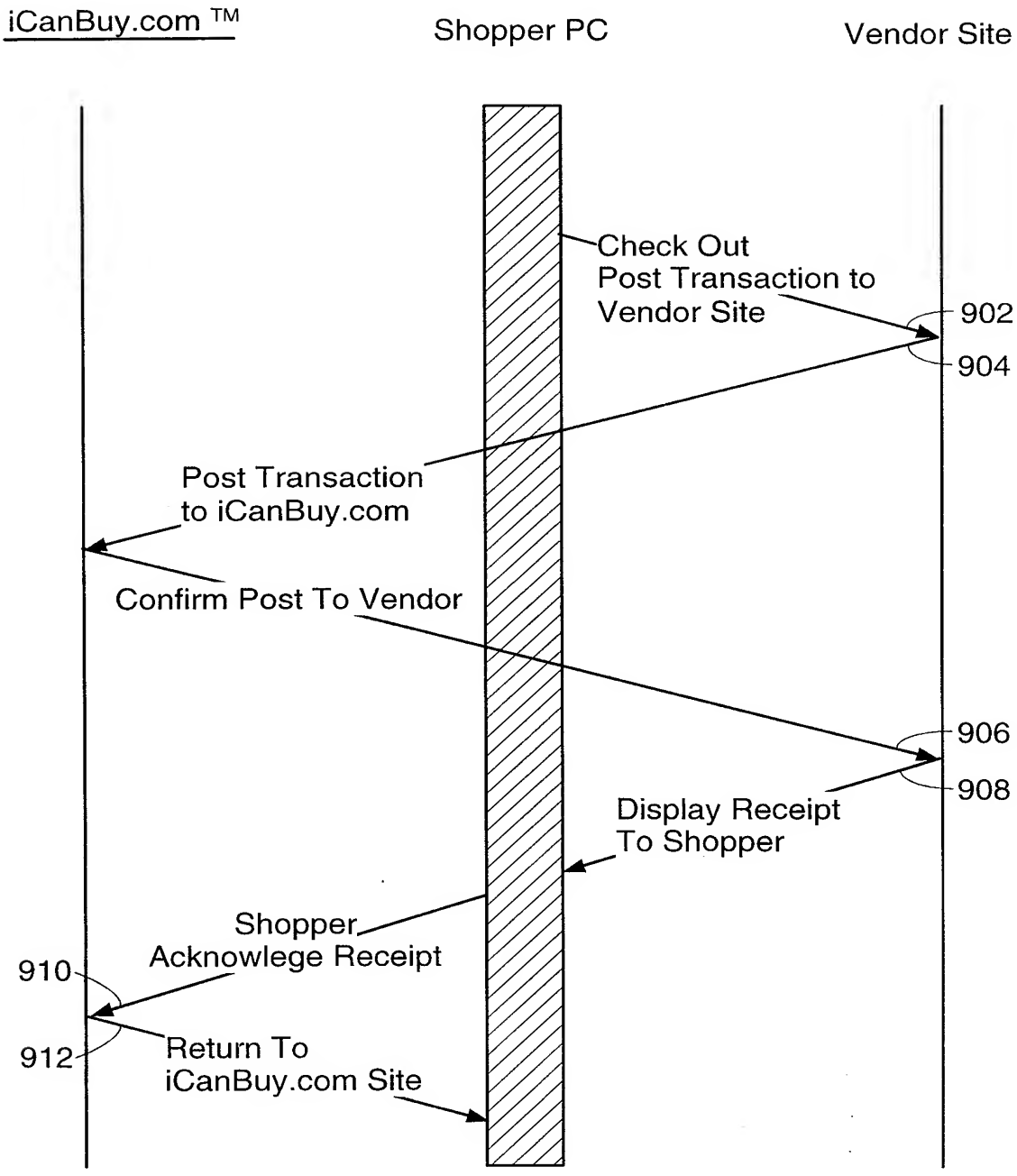
Choose Vendor Site To Shop
804
806
Enter Vendor Site
Shopping at Vendor Site
808
Vendor Shopping Cart (iCanBuy.com enabled)
810
Add An Item to Wish List
812
Post Wish to iCanBuy.com
814
Post Script to Remove the Item from Vendor Site
816
Display Updated Shopping Cart
818
Check Out
820

FIG. 8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Post Transaction to
Vendor Site
902
904
Post Transaction
to iCanBuy.com
Confirm Post To Vendor
906
908
Display Receipt
To Shopper
Shopper
Acknowlege Receipt
910
912
Return To
iCanBuy.com Site

FIG. 9